Joint Deployment CONOPS, Metrics & Seabased Technology Challenges

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Joint Operating Concept

"The US must have strategic and operational capabilities along with the flexibility and agility to counter anti-access threats and area denial strategies by various means to ensure the use of needed lines of communication and infrastructure… Additionally, the proper mix of forces, the appropriate forcible entry as well as air and sea lift capabilities to maneuver from strategic distances and deliver forces where the adversary does not expect, reengineered mobilization processes, and the concept of modular force packaging requiring less reception, staging, onward movement, and integration—all enhance our strategic agility and deal with the anti-access challenges."

MCO JOC, September 2004

Joint Operations Concept (JOpsC)

Attributes

- Fully integrated
- **Expeditionary**: **rapidly deployable, employable, and sustainable throughout the global battlespace regardless of anti-access or area-denial environments and independent of existing infrastructure.**
- Networked
- Decentralized
- Adaptable
- Decision Superiority
- Lethality

How the Force will Operate

- 3.A.4. ***Rapidly deploy*** selected portions of the joint force which can rapidly transition to execution, even in the ***absence of dev infrastructure***
- 3.A.5. Sustain ***continuous pressure throughout the battlespace*** for as long as necessary to accomplish strat and operational aims
- 3.A.7. ***Conduct deployment and***

Overarching Tenets

An adaptive joint force will be capable of ***conducting rapidly executable, globally and operationally distributed, simultaneous and sequential operations. (10)***

The joint force will be able to ***rapidly build momentum and close the gaps between the decision to employ force and the deployment of initial entry and follow-on forces to rapidly achieve objectives. . . . Deploy and employ directly throughout the depth of the battlespace. (11)***

The joint force must sustain itself in austere global regions by becoming ***less dependent on existing***

10-30-30 Swiftness Goals

- **OSD Analytical Agenda**
  - Supported by a series of Operational Availability (OA) studies that provide insights on force projection capabilities
  - Identifies force packages that can be used for global strike, to swiftly defeat enemies in two of four regions, and win decisively in one of the two regions
- ***Immediate/Prompt Response* Capabilities**
  - Must deploy early enough and with enough force to successfully execute the mission by D+10
- ***Rapid/Sustained Response* Capabilities**
  - Must deploy early enough and with enough force to successfully execute the mission by D+30

These are stretch goals, not requ

Service Implementing Strategies

NAVY/MARINES

Operational Context

- **Threat Complexity**
  - High degree of uncertainty and ambiguity
  - Increased complexity of asymmetric threats
- **COCOM *Immediate Response* Capability Gaps**
  - Focused, actionable intelligence and “eyes on target”
  - Rapid standup of JTF C2
  - Ability to apply tailored combat power immediately, including Special Operations
- **COCOM *Rapid Response* Capability Gaps**
  - Tailorable, Scalable, & Modular Capabilities

Rapid Transition from Crisis to Joint Forcible Entry Operations (JFEO)

MPF Employment Time

Survey Liaison Recon Party

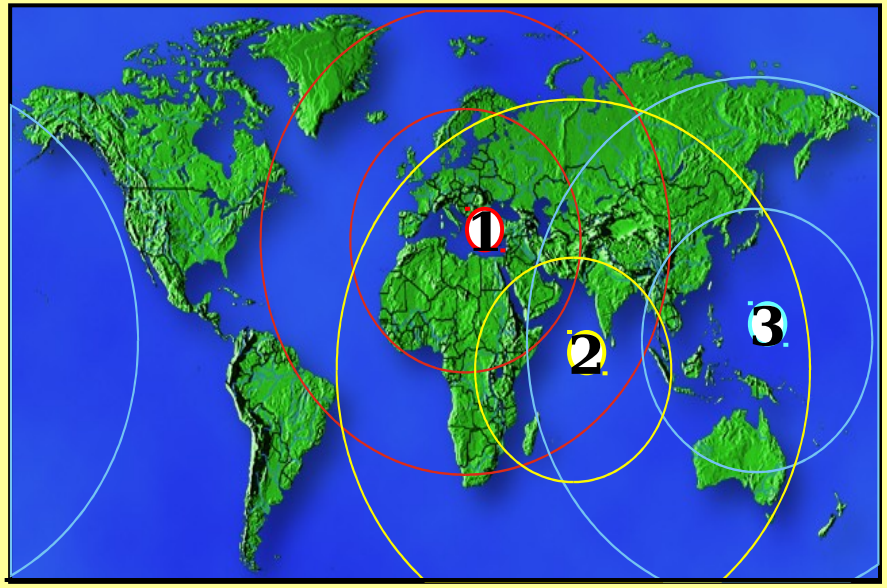
Deploy — ~~Prepare Port~~

Offload Preparation Party

Deploy — ~~Prepare Cargo~~

Advance Party

~~Deploy~~



Ships

Transit — 0

~~Offload~~ — 7 — 10

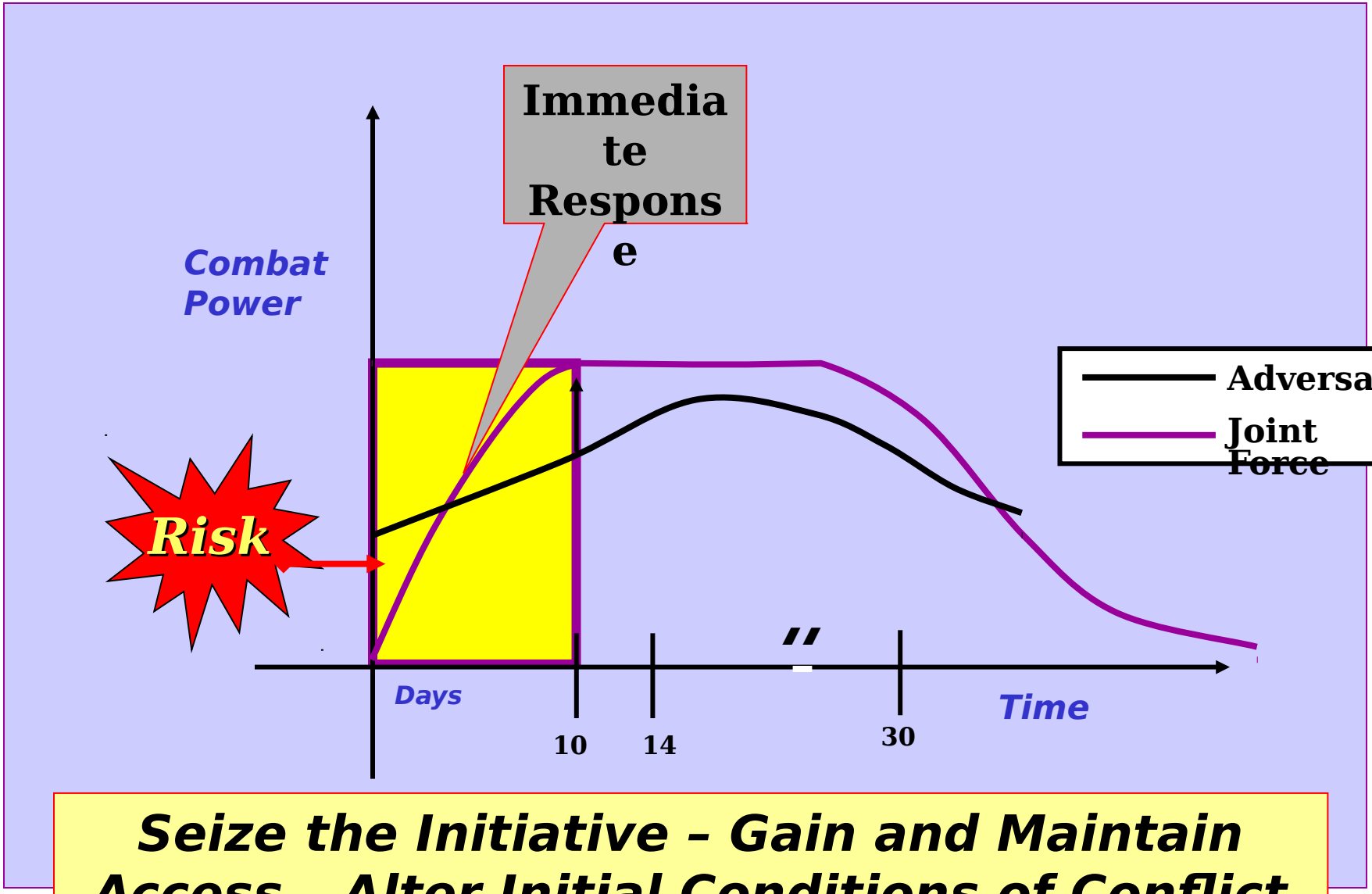
Main Body

Deploy / At-Sea Arrival

Fully Operational

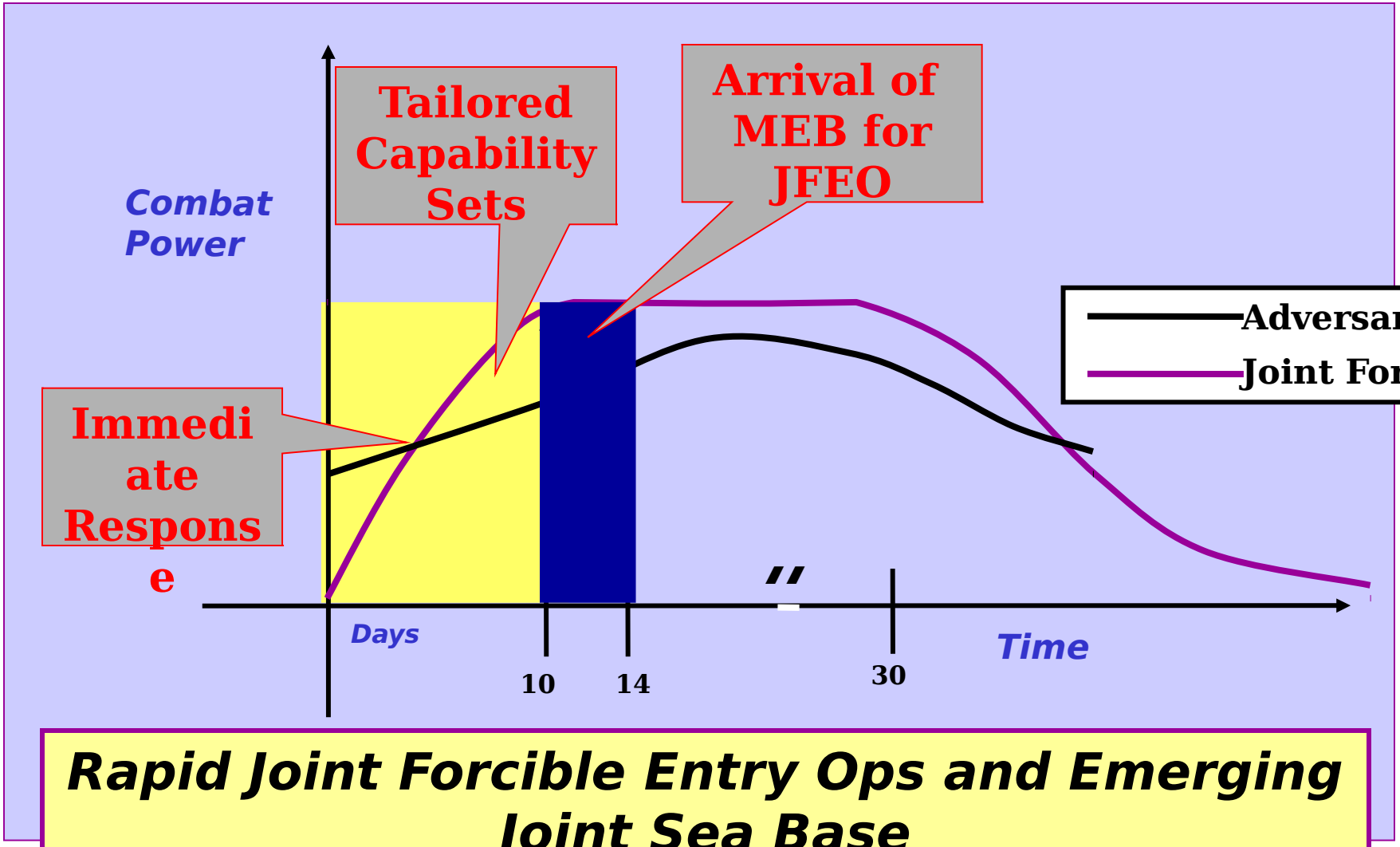
0 2 4 6 7 8 10 12 14 16 17 18

Immediate Response



Seize the Initiative – Gain and Maintain Access – Alter Initial Conditions of Conflict

Rapid Response



Rapid Joint Forcible Entry Ops and Emerging Joint Sea Base

Seabased Technology Challenges

- **At sea arrival and assembly of MEB flow in echelon and Naval Support Element in 36 – 72 hours** *(Figures below are estimates from MPF(F) AoA)*
  - Roughly 11,000 pax
  - Roughly 240,000 sqft of cargo
  - 20 CH-53s, 9 UH-1s, ~ 250 20-ft TEUs and 76,696 sqft (~415 pieces of equipment)
- **All-weather, 24-hour operation**
  - Must overcome environmental factors that limit operations in open seas
  - Will need some staging area initially on the interface/platform to facilitate loading on MPF(F)
  - From 1 to 2 RSLS vessels to 3 to 4 MPF(F) ships based on laydown

Based on JLOTS III Test data and a cursory review of the on-going S&T and R&D efforts, meeting the 72-hour goal will be challenging

Service Implementing Strategies

ARMY

Current / Projected Operating Environment:
Enemy Anti-Access Strategies:

Intervention Denial and Operational Exclusion

Goals

- Deny, delay, and/or degrade external intervention
- Accomplish fait accompli before intervention occurs
- Make intervention prohibitively costly
- Degrade US will

Source:

Joint Operational Environment

Multiple assured access analyses

Wargaming

Methods

- Coalition-busting activities
- Multiple lines of operations, employing all e
- Conventional and unconventional military means
- Denial of air and sea approaches; long-range strike against APODs, SPODs, ISBs, FOBs (BMs, CMs, etc.); modernized IADS; IO; WME
- Focused investment in denial capabilities
- Creation of mass casualties
- All the above at any point on the force projection continuum

Assessment: Current programs will not deal effectively with these challenges

Known Limitations / Shortfalls: Operational Consequences

- Takes too much time to project a balanced, multi-dimensional force
- Time gap between early entry forces and follow-on (*heavy*) campaign forces delays transition to decisive operations
- Inevitable operational pauses and vulnerability gap
- Dependence on improved PODs limits flexibility; may not be close to the fight
- Predictable, visible force flow . . . Easier to interdict or delay
- Absence of strategic and operational surprise; very difficult to preclude
- Sequential force build-up = highly sequenced operations
- Cannot fight on arrival (extended RSOI required)
- Cannot act with precision strike and maneuver throughout entire enemy's dispositions until late in force flow
- Delay in transition to decisive operations = delay in achieving decision
- Force design implications: restricted capability in order to fit lift parameters

[Ex ***96 hours]***

Current shortfalls adversely restrict options available to the JFC and delay

How Force Projection Must Support the Joint Force Commander

Increased ***multi-modal throughput*** by means of parallel, simultaneous and sequential force flows to ***achieve deployment momentum*** within an ***anti-access environment***

Synchronization of deployment with immediate employment of arriving forces in a ***Deploy=Employ paradigm***, within any operational environment

Ability to ***close the gap between early entry and follow-on forces*** to assure rapid transition to decisive operations. [deployment momentum becomes employment momentum]

Use of ***multiple entry points***; presentation of ***multiple dilemmas*** for the enemy to resolve

Reduction in predictability and vulnerability to enemy counters through use of multiple entry points: improved and unimproved A/SPODs and OTS

Improved capability to defend and secure improved A/SPODs (e.g., TMD)

Versatility and adaptability for both developed and austere theaters and to adjust deployment throughput in support of ***evolving campaign requirement***

Reduction in the size of the deployment infrastructure (air and sea bridge) and the

Required Capabilities for Strategic Responsiveness

Future Joint Force Requirements

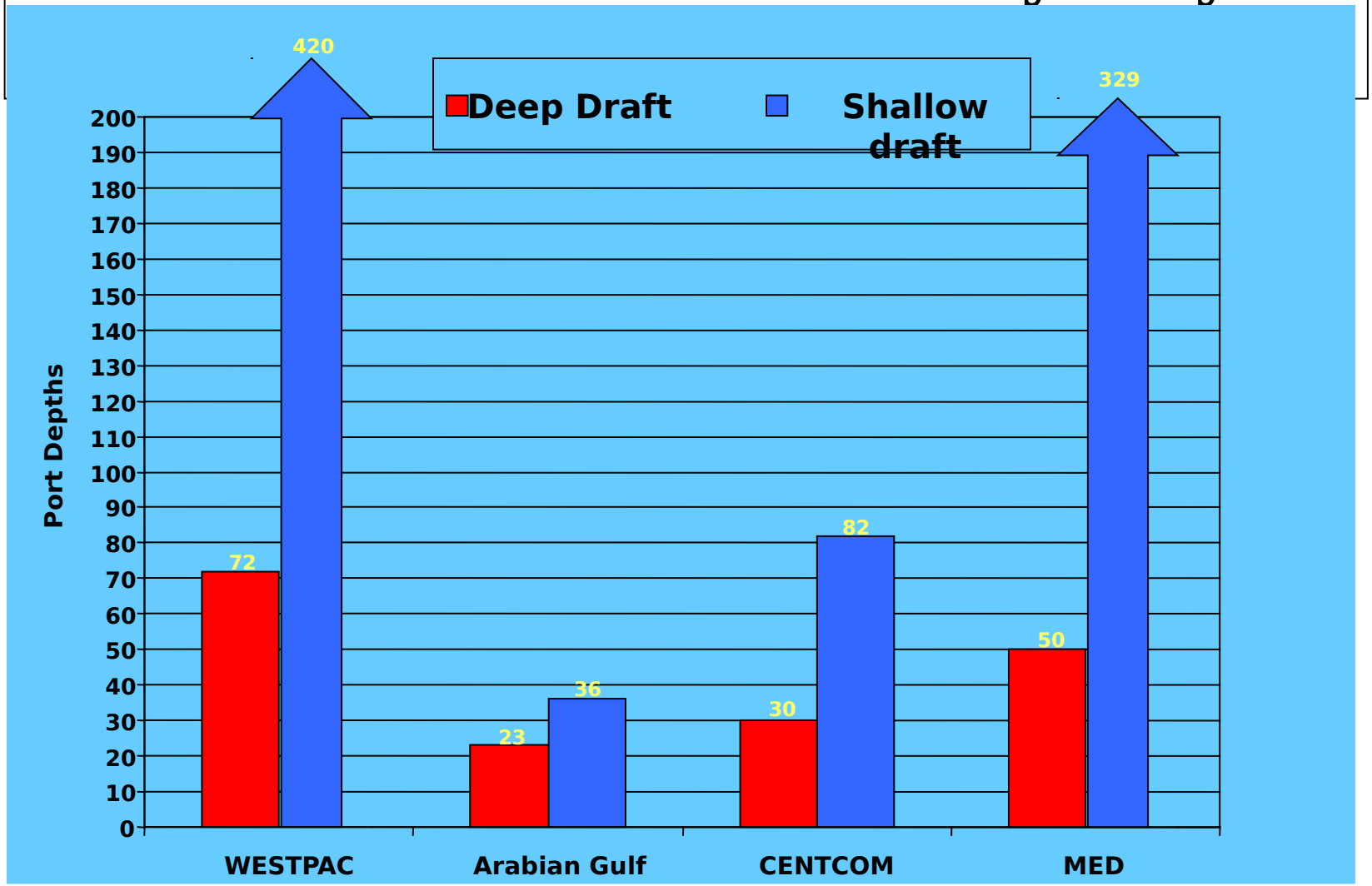
Overarching goals: ***compress time and enable very rapid transition to decisive operations by a balanced, joint contingency force, mission-tailored to meet JFC campaign objectives***

- **Deployment in integrated "ready-to-fight" packages. Combined arms + personnel + sustainment moved together= reduced RSOI.**
- **Reduced # and simplification of mode transfers (ground-to-air/sea, air/sea-to-ground, etc.) expanded fort-to-fight**
- **Reduction of # of nodes which must be transited**
- **Use of many more entry points: unimproved A/SPODs; shorter runways; use of non-airfields; reduced MOG restrictions; over-the-shore**
- **Improvements in speed, range, and payload; operational self-deployment beyond 1,000km**
- **Faster on/off load**
- **More survivable [passive and active] at each stage**
- **Reduced infrastructure and enablers to support air and sea bridge**

- Shallow draft, high speed seali
- Joint over-the-shore capability
- Ultra heavy/ultra-large airlift
- Fort-to-fight airlifter
- Super STOL with legs
- Expanded air refueling
- Expanded air-delivered sustainment
- Theater support vessel
- Strategic-configured unit-loads
- Distribution based logistics

** **Many complementary enablers also required: anti-IADS, EMPRS, decision support tools, improved M&S, active protection systems, etc.***

Greater Port Accessibility – By



Data from CNA CIM D0005441.A1/Final, World Ports: Pier Depths and Harbor Size, Parts I and II, January, 2002.

AAHSS "CONOPs"

General Parameters

- Each AAHSS in motion represents capability to deliver a combat configured force across an austere port or over the shore for immediate employment with minimal RSOI in 12 hrs or less
- Vessels sized to battalion TF (+). [roughly 5,000 ST and <1,500 pax]
- A 3-bn brigade fighting echelon could be spread across two vessels with integrated sustainment and some level of combat support. [medium-weight BCT]
- Division/UEx C2 and support units distributed across 2-3 vessels. (Some bde and div C2 in EECPs)
- A division level capability could be achieved with 6 vessels; full up division/UEx with 9

Army considers AAHSS to be the MOST significant advanced lift capability for the FF, for both prompt and sustained response

CONOPs

- HSS uploads units at CONUS or forward ports in combined arms, combat configuration with full pax for embarked units
- Ships conduct strategic movement to JOA; refuel in transit if necessary
- Force projection goes port to port, avoiding need to use advance base or conduct mode transfer
- Conducts mission planning, rehearsal, and SU updates in transit
- Near-simultaneous discharge of embarked forces across multiple austere ports or O-T-S
- Seabase provides ISR, IAMD, fires, POD security (if required) and sustainment to deployed forces
- Separation between SPODs acceptable; bdes could disembark up to 200 kms apart; bn TFs up to 50km apart
- SPOD selection based on multiple factors: security, transport net, throughput, etc.

Army Deployment Metrics

Why the Need to Change

- Tie to SecDef Joint Swiftness Goals
- Upcoming DoD Mobility Capability Study (MCS)
- Joint Staff, ARSTAF& MACOMs need approved metrics for planning
- G-3 specified task in Draft Army Campaign Plan
- Establish End-to-End Metrics
- Define Start Point for Metrics

Joint-Nested Army Metrics

Other Services' Recognition of Army Metrics

Current Deployment Metrics

The Objective Force …

> "will have the capability to deploy a **brigade** combat team anywhere in the world in **96 hours** after liftoff, a **division** on the ground in **120 hours**, and **five divisions** in theater in **30 days.**"

Army Transformation Campaign Plan, Change 1, Jan 2003

Recommended Revised Deployment Metrics

From notification:

Deploy and employ a BDE/UA like capability in 4-7 days.

Deploy and employ a DIV/UE like capability in 10 days.

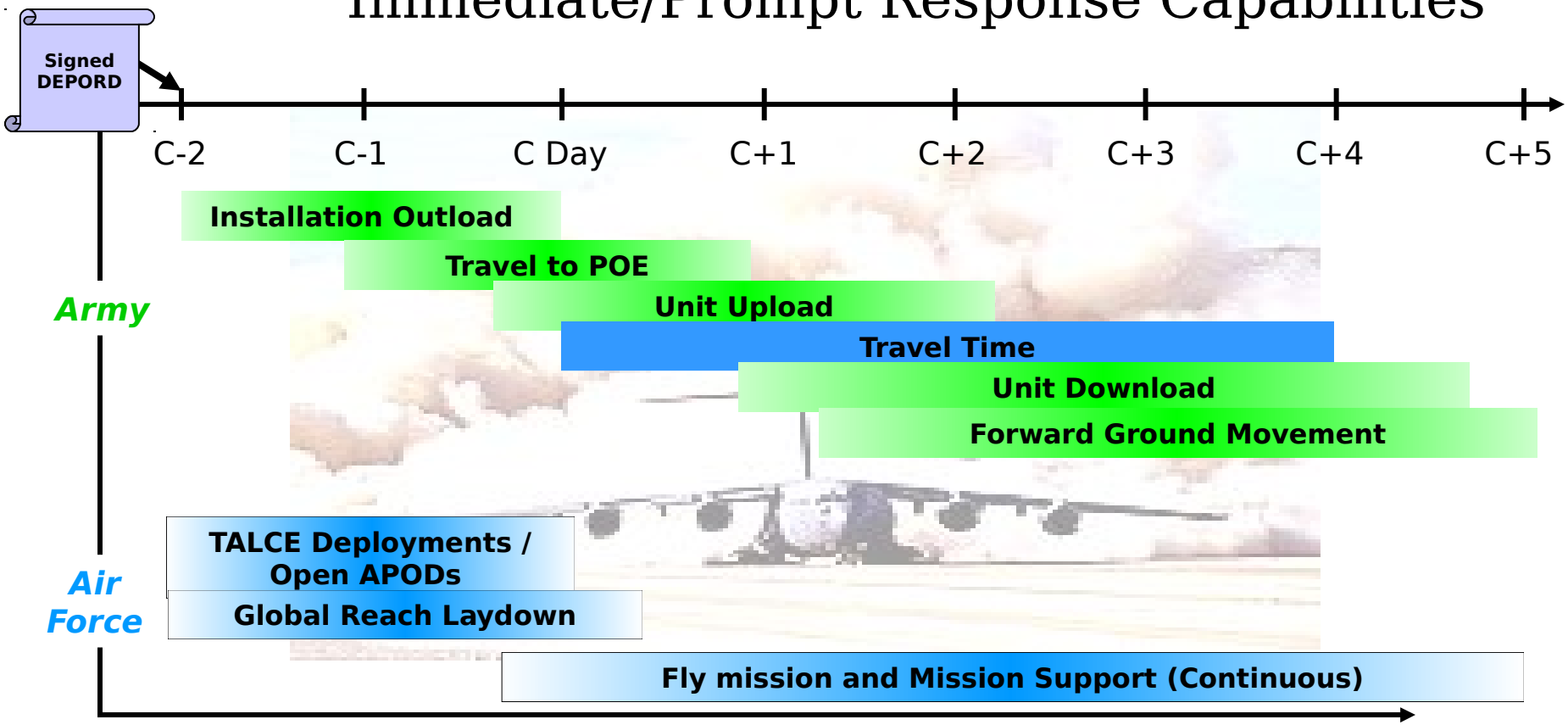
Deploy 3 division/UE like capability in 20 days.

Deploy 5 division/UE like capability in 30 days

Joint Swiftness Goals require a joint and expeditionary mindset … and a faster deployment timeline

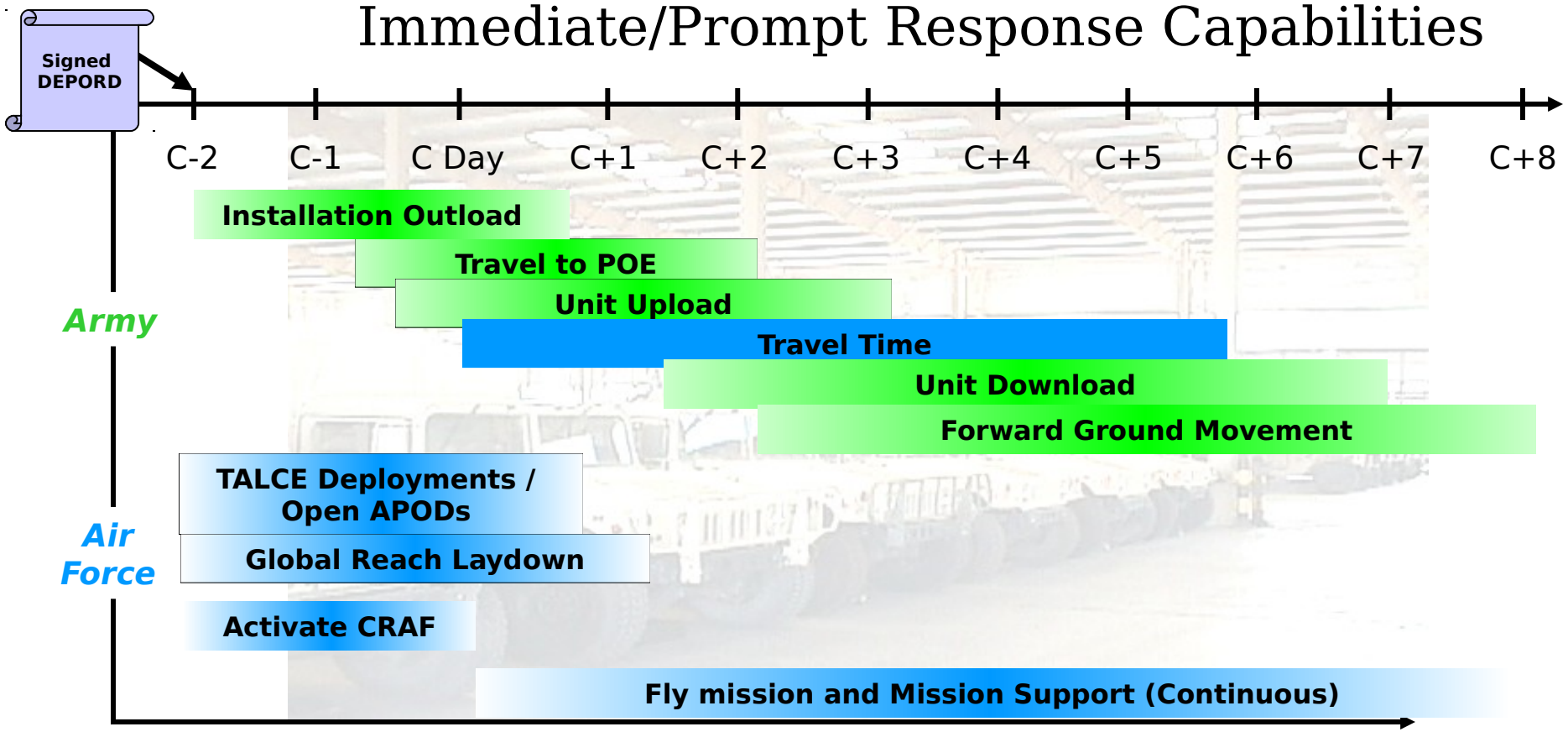
Army Deployment Metrics

Immediate/Prompt Response Capabilities



Brigade / UA to one of the four critical regions in 4 - 7 days

Army Deployment Metrics



Division / UE (two additional Bdes / UAs) to one of four critical regions in 10 days

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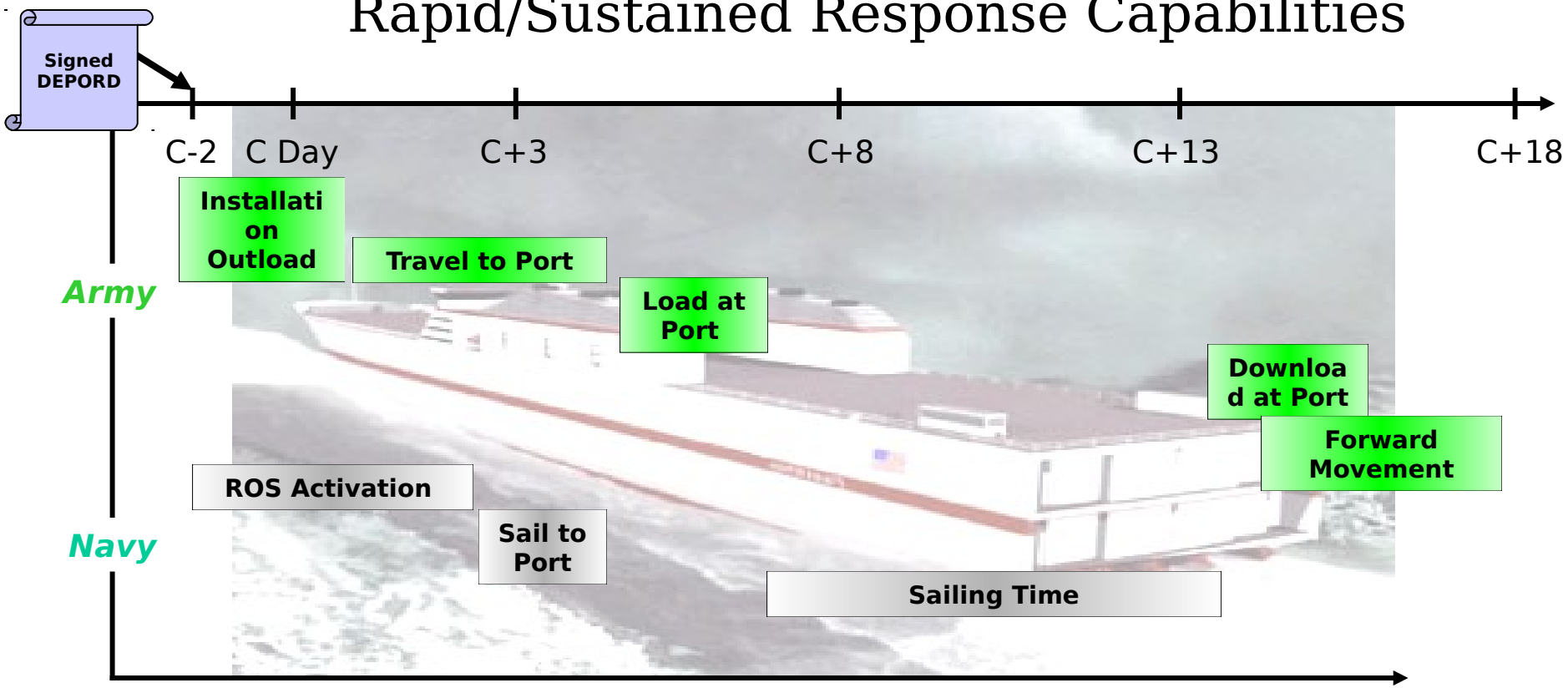
Army Deployment Metrics

Rapid/Sustained Response Capabilities



3 Divisions (2 additional Divs / UEs) to one of the four critical regions in 20 days

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Seabased Technology Challenges

Assumes A2/AD Environments

Immediate/Prompt Response Capabilities

- **AAHSS vessels to LMCS (Forward deployed forces or CONUS-based Option)**
  - Two Inter-theater vessel w/ battalion sized forces, BCT(-) capability
  - BCT(-) has roughly 600 – 800 pieces of rolling stock, limited number of containers
  - Worse case… X Tracks, X Wheels, Containers???
  - 34 vehicles per hour to achieve 12 hour off-load per vessel
  - Off-load BCT(-) in one 24-hr period, includes LMCS set-up, A&M and C&C
- **JHSV vessels to LMCS (APS Ashore Option)**
  - 16 Intra-theater vessels w/ Co(+) sized forces, BCT(-) capability
  - 25 – 34 pieces per hour to achieve 90 minutes per vessel
  - Off-load BCT(-) in one 24-hr period, includes LMCS set-up, A&M and C&C

Vessels must be pax capable

Seabased Technology Challenges

Assumes A2/AD Environments

Immediate/Prompt Response Capabilities

- **Prepo (LMSR) to Seabase to JHSV to LMCS (APS Afloat Option)**
  - Hvy Modular BCT (Two LMSRs)
  - LMSRs sail to Seabase and transship to JHSV
  - PAX fly to AB/ISB and shuttle to seabase by air and/or sea
  - 4142 Pax, 1900 vehicles, 344K sqft, 24K stons
  - Based on JLOTS III test data (6 hrs to load 50 pieces onto LSV), ~ 12 days alone to discharge from LMSR to Seabase to JHSV assuming 24-hr operations

RSOI at Seabase of Army Heavy BCT Afloat does not appear to be a feasible option

Seabased Technology Challenges (cont)

Assumes A2/AD Environments

Rapid/Sustained Response Capabilities

- **The same type of capabilities required to deploy/employ the immediate/prompt response forces will be necessary to deploy/employ the follow-on echelons to reduce operational pause**
- **Further analysis is required to develop the key performance parameters necessary to meet the joint swiftness goals**

Bottom Line

- **The US will continue to have a need for advanced force projection capabilities that will enable the future joint force to be more strategically responsive and operationally agile.**
- **Creating and maintaining assured access to the theater of conflict will present major challenges to US interventions in the future.**
- **A2/AD challenges will not only be the result of enemy actions to deny entry by military force, but also as the result of geography, level of economic development, and geostrategic policies.**

S&T and R&D investments in technologies such as LMCS, ILP, Skin-to-skin transfer and automated cargo handling must be continued to meet the strategic response and A2/AD goals articulated in our defense strategy

QUESTIONS???